



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

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Ref: 8EPR-SR

June 4, 2007

Ms. Bonnie L. Rader, Director  
Citizens for Lowry Landfill  
Environmental Action Now (CLLEAN)  
71 Algonquain Street  
Aurora, CO 80018

RE: Response to CLLEAN's Comments  
on the Draft North End Monitoring Plan,  
Lowry Landfill Superfund Site

Dear Bonnie:

Thank you for the comments you sent on behalf of CLLEAN regarding the April 16, 2007 draft "North End Groundwater Monitoring Plan", prepared by Engineering Management Support, Inc. A copy of your May 15, 2007 letter (received by the Environmental Protection Agency (EPA) on May 21, 2007 via UPS express mail) has been placed in the Site file for the Lowry Landfill Superfund Site (the Site). EPA appreciates CLLEAN's participation in the process of reviewing and providing comments on documents prepared by the Work Settling Defendants and recognizes your continuing efforts to provide comments that are consistently constructive.

First, EPA would like to again state our view that there are several possible explanations for the occurrence of the chemicals 1,4 dioxane and nitrate in groundwater at levels above the Site performance standards in compliance wells along the northern point of compliance and in investigative wells installed downgradient of the Site as part of the North End Investigation. Descriptions of the possible explanations can be found in at least two places in the Site file: 1) EPA's August 11, 2006 letter to the Work Settling Defendants; and 2) Section VI of the Five-Year Review Report, Second Review for the Lowry Landfill Superfund Site issued on February 17, 2007.

As more data are collected at the Site, we will continue to learn more and refine our understanding of the possible explanations. Our conceptual understanding (model) of groundwater migration north of the Site is updated whenever new information from the North End Investigation is generated. This information is provided to all interested parties in the Remedial Action and Operations and Maintenance Status Reports submitted quarterly by the Work Settling Defendants.

The highest priorities now are to implement a response action to address the groundwater impacts at and downgradient of the northern point of compliance and to demonstrate ongoing protection of human health. The objective of the North End Groundwater Monitoring Plan is to collect data to measure our progress in achieving these priorities. We believe that direct measurement of


groundwater quality by collecting and analyzing groundwater samples from selected wells completed in the weathered Dawson formation (as proposed in the draft North End Groundwater Monitoring Plan) is preferable to using numerical models. Numerical models will present a higher degree of uncertainty than direct measurements in this case.

Also, we share CLLEAN's concern about the possible existence of lineaments at the Site. The figure attached to your letter was developed by the Colorado Department of Public Health (CDPHE) and represents their perspective. This figure was not part of any report prepared by Parsons and submitted to EPA. Also, EPA has not participated in the recent CDPHE presentation referred to in your letter so we are not aware of the context in which this figure was presented and to whom. EPA's view is that the EPA-approved "Work Plan for Additional Geologic Characterization of Potential Lineaments" (February 28, 2005), a consensus recommendation of the Lineament Technical Working Group, was specifically developed to address the potential for preferential lateral and vertical migration of groundwater contamination along lineaments. That plan has been successfully implemented.

Finally, the North End Investigation has generated information important to our understanding of the nature and extent of the groundwater impacts north of the Site including: 1) Shallow groundwater has been impacted; 2) Surface water in Murphy Creek has not been impacted by 1,4 dioxane or nitrate except in areas where impacted shallow groundwater is in contact with surface water. Monitoring shallow groundwater rather than surface water is a more direct way to assess the progress of the response action; and 3) Chemicals detected in shallow groundwater at levels above performance standards are limited to 1,4 dioxane and nitrate. Compliance monitoring of 30 chemicals at all 60 wells in the compliance monitoring network at the Site will continue and results will be reported in the Remedial Action and Operations and Maintenance Status Reports.

EPA appreciates CLLEAN's comments and would be happy to discuss them with CLLEAN if there is interest among the members of CLLEAN. We are always happy to meet and often find a meeting to be a better means of reaching some common understanding. Please let me know if this is something you would like to arrange. I can be reached at (303) 312-6579.

Sincerely,

  
Bonnie Lavelle  
Remedial Project Manager

cc: Angus Campbell, CDPHE  
Steve Richtel, Waste Management of Colorado, Inc.  
Dave Wilmoth, City and County of Denver  
Lynn Robbio Wagner, TCHD  
Paul Rosasco, EMSI

